

REMARKS

In the non-final Office Action, the Examiner rejected claims 1-5, 7, 9, 14-16, 18, 19, and 21 under 35 U.S.C. § 102(b) as anticipated by Bowman et al. (U.S. Patent No. 6,006,225); rejected claims 6, 8, and 20 under 35 U.S.C. § 103(a) as unpatentable over Bowman et al. in view of Hovy et al. ("The Use of External Knowledge in Faction QA," November 2001); rejected claim 11 under 35 U.S.C. § 103(a) as unpatentable over Bowman et al. in view of Chaney et al. (U.S. Patent Application Publication No. 2004/0225681); rejected claim 12 under 35 U.S.C. § 103(a) as unpatentable over Bowman et al.; rejected claim 13 under 35 U.S.C. § 103(a) as unpatentable over Bowman et al. in view of Schultz (U.S. Patent No. 5,640,553); and rejected claim 17 under 35 U.S.C. § 103(a) as unpatentable over Bowman et al. in view of Calishain et al. ("Google Hacks," February 2003). The Examiner objected to claim 10 as dependent upon a rejected base claim, but indicated that claim 10 would be allowable if rewritten into independent form to include the features of the base claim and any intervening claims. The Examiner identified claim 22 as allowed.

By this Amendment, Applicants cancel claims 10, 13, 19, and 20 without prejudice or disclaimer; and amend claims 1-6, 12, 14, 16-18, and 21 to improve form. Applicants appreciate the Examiner's indication of allowable subject matter, but respectfully traverse the Examiner's rejections under 35 U.S.C. §§ 102 and 103. Claims 1-9, 11, 12, 14-18, 21, and 22 are pending.

REJECTION UNDER 35 U.S.C. § 102(b) BASED ON BOWMAN ET AL.

In paragraphs 2-15 of the Office Action, the Examiner rejected pending claims 1-5, 7, 9, 14-16, 18, and 21 under 35 U.S.C. § 102(b) as allegedly anticipated by Bowman et al. Applicants respectfully traverse the rejection with regard to the claims as presented herein.

Independent claims 1 and 14 have been amended to include the allowable features of claim 10. Therefore, claims 1 and 14 should be in condition for immediate allowance by the Examiner. Claims 2-5, 7, and 9 depend from claim 1, and claims 15 and 16 depend from claim 14. Therefore, claims 2-5, 7, 9, 15, and 16 should also be in condition for immediate allowance by the Examiner at least by virtue of their dependency from allowable claims 1 and 14.

With regard to claims 18 and 21, a proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention. Any feature not directly taught must be inherently present. In other words, the identical invention must be shown in as complete detail as contained in the claim. See M.P.E.P. § 2131. Bowman et al. does not disclose or suggest the combination of features recited in amended claims 18 and 21.

Amended independent claim 18, for example, is directed to a method that comprises determining a plurality of entity names; determining whether each of the entity names corresponds to one of a plurality of common words or phrases by one of: comparing each of the entity names to a dictionary of words or phrases, or using an inverse document frequency weighting technique or a linguistic modeling technique to identify whether each of the entity names corresponds to one of the common words or

phrases; and generating a table of the entity names that correspond to the common words or phrases.

Bowman et al. does not disclose the combination of features recited in amended claim 18. For example, Bowman et al. does not disclose or suggest determining whether each of the entity names corresponds to one of a plurality of common words or phrases by one of: comparing each of the entity names to a dictionary of words or phrases, or using an inverse document frequency weighting technique or a linguistic modeling technique to identify whether each of the entity names corresponds to one of the common words or phrases.

The feature of "comparing each of the entity names to a dictionary of words or phrases" was previously recited in claim 19. With regard to claim 19, the Examiner referred generally to the rejection of claim 7 (Office Action, paragraph 14). With regard to claim 7, the Examiner alleged that Bowman et al. discloses comparing an entity name to a dictionary of words or phrases and cited Figures 5A and 7 of Bowman et al. for support (Office Action, paragraph 8). Applicants disagree.

With regard to Figure 5A, Bowman et al. discloses:

FIG. 5A illustrates an example mapping. In this figure, it is assumed that the generation process 136 has already processed many thousands of log entries. For each key term 140 stored in the table 137A, there is a related terms list 142 such that each related term in the list is coupled with a prefix and a value 146 representing the correlation score. Each time the key term 140 and a related term 142 are used together in a query, the related term's value 146 is incremented.

Assume that the table generation process 136 parses a query "OUTDOOR BIKE TRAIL" submitted in the subject field. FIG. 5A shows the mapping before the query is added. In response to the query, the generation process 136 updates the mapping 137A producing the mapping 137B shown in FIG. 5B. The generation process 136 first looks up the key term "S-OUTDOOR" 560 and then looks for the related terms "S-BIKE" 580 and "S-TRAIL" 590. If the related term is found,

its value is incremented. If the related term is not found, the generation process 136 adds the related term and assigns it a beginning value. In the example shown in FIG. 5B, the values for both "S-BIKE" 580 and "S-TRAIL" 590 have been incremented by one. Note that under the key term "T-OUTDOOR," the value for the term "S-TRAIL" was incremented while the value for the term "T-TRAIL" was not incremented. This is because the query was submitted in the subject field, thus affecting only terms with the prefix "S."

(col. 10, lines 42-67). In this section, Bowman et al. discloses a table that provides, for each key term, a list of related terms that have appeared with the key term in prior search queries. Nowhere does Bowman et al. disclose or suggest that the table is a dictionary of words or phrases. In fact, Bowman et al. does not even mention a dictionary. Thus, nowhere with regard to Figure 5A, or elsewhere, does Bowman et al. disclose or suggest comparing each of the entity names to a dictionary of words or phrases, as required by claim 18.

With regard to Figure 7, Bowman et al. discloses a process that looks up a query term in a correlation table and retrieves the term's list of related terms. Nowhere does Bowman et al. disclose or suggest that the correlation table is a dictionary of words or phrases. In fact, Bowman et al. does not even mention a dictionary. Thus, nowhere with regard to Figure 7, or elsewhere, does Bowman et al. disclose or suggest comparing each of the entity names to a dictionary of words or phrases, as required by claim 18.

The feature of "using an inverse document frequency weighting technique or a linguistic modeling technique to identify whether each of the entity names corresponds to one of the common words or phrases" was previously recited in claim 20. The Examiner did not address this feature when addressing claim 20 (Office Action, paragraph 17). With regard to a similar feature in claim 8, however, the Examiner admitted that Bowman et al. does not disclose using a linguistic modeling technique, but alleged that Hovy et al.

discloses a linguistic modeling technique (Office Action, paragraph 18). Assuming, for the sake of argument, that Hovy et al. discloses a linguistic modeling technique (a point that Applicants do not concede), Hovy et al. does not disclose or remotely suggest using an inverse document frequency weighting technique or a linguistic modeling technique to identify whether each of the entity names corresponds to one of the common words or phrases, as required by claim 18.

For at least these reasons, Applicants submit that claim 18 is not anticipated by Bowman et al. and is patentable over Bowman et al. and Hovy et al., whether taken alone or in any reasonable combination.

Amended independent claim 21 recites features similar to (but possibly different in scope from) features recited in claim 18. Claim 21 is, therefore, not anticipated by Bowman et al. and is patentable over Bowman et al. and Hovy et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given with regard to claim 18.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5, 7, 9, 14-16, 18, and 21 under 35 U.S.C. § 102(b) based on Bowman et al. and under 35 U.S.C. § 103(a) based on Bowman et al. and Hovy et al.

*REJECTION UNDER 35 U.S.C. § 103(a) BASED ON
BOWMAN ET AL. AND HOVY ET AL.*

In paragraphs 16-18 of the Office Action, the Examiner rejected pending claims 6 and 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bowman et al. in view of Hovy et al. Applicants respectfully traverse the rejection.

Claims 6 and 8 depend from claim 1. Without acquiescing in the Examiner's rejection with regard to claims 6 and 8, Applicants submit that the disclosure of Hovy et al. does not cure the deficiencies in the disclosure of Bowman et al. identified above with regard to claim 1. Therefore, claims 6 and 8 are patentable over Bowman et al. and Hovy et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 6 and 8 under 35 U.S.C. § 103(a) based on Bowman et al. and Hovy et al.

*REJECTION UNDER 35 U.S.C. § 103(a) BASED ON
BOWMAN ET AL. AND CHANNEY ET AL.*

In paragraphs 19 and 20 of the Office Action, the Examiner rejected claim 11 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bowman et al. in view of Chaney et al. Applicants respectfully traverse the rejection.

Claim 11 depends from claim 1. Without acquiescing in the Examiner's rejection with regard to claim 11, Applicants submit that the disclosure of Chaney et al. does not cure the deficiencies in the disclosure of Bowman et al. identified above with regard to claim 1. Therefore, claim 11 is patentable over Bowman et al. and Chaney et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 11 under 35 U.S.C. § 103(a) based on Bowman et al. and Chaney et al.

REJECTION UNDER 35 U.S.C. § 103(a) BASED ON BOWMAN ET AL.

In paragraph 21 of the Office Action, the Examiner rejected claim 12 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bowman et al. Applicants respectfully traverse the rejection.

Claim 12 depends from claim 1. Without acquiescing in the Examiner's rejection with regard to claim 12, Applicants submit that claim 12 is patentable over Bowman et al. for at least the reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 12 under 35 U.S.C. § 103(a) based on Bowman et al.

*REJECTION UNDER 35 U.S.C. § 103(a) BASED ON
BOWMAN ET AL. AND CALISHAIN ET AL.*

In paragraph 22 (page 7) of the Office Action, the Examiner rejected claim 17 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bowman et al. in view of Calishain et al. Applicants respectfully traverse the rejection.

Claim 17 has been amended to include the allowable features of claim 1. The disclosure of Calishain et al. does not cure the deficiencies in the disclosure of Bowman et al. with regard to claim 1. Therefore, claim 17 is patentable over Bowman et al. and Calishain et al., whether taken alone or in any reasonable combination, for at least reasons similar to reasons given with regard to claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 17 under 35 U.S.C. § 103(a) based on Bowman et al. and Calishain et al.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of the application and the timely allowance of pending claims 1-9, 11, 12, 14-18, 21, and 22.

As Applicants' remarks with respect to the Examiner's rejections overcome the rejections, Applicants' silence as to certain assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions regarding dependent claims, etc.) is not a concession by Applicants that such assertions are accurate or that such requirements have been met, and Applicants reserve the right to dispute these assertions/requirements in the future.

If the Examiner believes that the application is not now in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned to discuss any outstanding issues.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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